



IDF Curve Tool Tutorial

▪ Buy a license and Installing

Installing the tool is straightforward. Once you purchase a license, you will receive a small utility called "ID Finder." After sending us the ID, you will receive the installer for the registered version. Simply run the installer, and the tool will be installed and ready for use without the need for a key. After installation, you can easily access the tool either by clicking on the desktop shortcut or by searching for "IDF Curve" in your computer's program list.

▪ Input Data

Gather historical rainfall data for the location of interest. You can obtain this data from various sources, including government meteorological agencies, research institutions, or local weather stations. Online databases and climate archives are valuable resources.

In the [IDF Curve](#) tool, there are two methods for inputting data:

1. The first method enables you to input raw data, which the tool will utilize to generate a Rainfall Intensity Table.
2. The second method allows you to directly input the Rainfall Intensity Table itself.



On the first tab, you can effortlessly enter your raw data and choose the sheet. Ensure that your date column is formatted in Excel's Date format. Be precise in selecting the correct time scale for your data; for instance, choosing hourly data when your dataset is in 3-hour intervals will result in inaccurate calculations.

Please choose one of the options under "Maximums in Output." You can select either the yearly maximum, the maximum for a specific month, the maximum for one of the twelve predefined seasons, or the maximum based on a custom selection of months (e.g., this set: Feb, Mar, Apr, Jun, and July).

The twelve predefined seasons are as follows:

- DJF: December, January, February (Winter)
- JFM: January, February, March (Winter to Spring transition)
- FMA: February, March, April (Early Spring)
- MAM: March, April, May (Spring)
- AMJ: April, May, June (Late Spring)
- MJJ: May, June, July (Early Summer)



- JJA: June, July, August (Summer)
- JAS: July, August, September (Summer to Autumn transition)
- ASO: August, September, October (Early Autumn)
- SON: September, October, November (Autumn)
- OND: October, November, December (Late Autumn)
- NDJ: November, December, January (Autumn to Winter transition)

Once the loading is complete, the Rainfall Intensity Table will be generated on the second tab and you export it if you want.

If you want to use text file use delimiter

Select File

Select Sheet

Select time scale of your data

Input Data Timing

5-Min 30-Min Daily

10-Min Hourly

15-Min 3-Hourly

Maximizations in Outputs

Yearly Maximum

Maximum of A Month Jan

Maximum of A Season

Maximum of Seasons DJF

Use Progress Bar

100.0%

Load Data

Your data has been loaded and created table.

Date	Rain	Intensity	Duration
1/1/2020 12:00:00 AM	0.034592461465148	4.2	0.0276739691721184
1/1/2020 12:00:00 AM	0.0207554768790888	1.7	0.0207554768790888
1/1/2020 12:00:00 AM	0.0415109537581776	0.5	0.0415109537581776
1/1/2020 3:00:00 PM	0.0830219075163552	0.4	0.0830219075163552
1/1/2020 6:00:00 PM	0.131451353567562	0.5	0.131451353567562
1/1/2020 9:00:00 PM	0.193717784204829	0.32909907426176	0.261408429233295
1/2/2020 12:00:00 AM	0.968588921024143	0.170139346763103	0.569364133893623
1/2/2020 3:00:00 AM	0.816382090577492	0.0321876373531169	0.424284863965305
1/2/2020 6:00:00 AM	0.539642398856308	0.101623937192137	0.320633168024223
1/2/2020 9:00:00 AM	0.297495168600273	0.142558279800347	0.22002672420031
1/2/2020 12:00:00 PM	0.352843106944509	0.0262093895389709	0.18952624824174
1/2/2020 3:00:00 PM	0.131451353567562	0.0122684035011871	0.0718598785343747
1/2/2020 6:00:00 PM	0.0553479383442368	0.0497124261050236	0.0525301822246302
1/2/2020 9:00:00 PM	0.0207554768790888	0.182300249223175	0.101527863051132
1/3/2020 12:00:00 AM	0.0415109537581776	0.0544692860479368	0.0479901199030572
1/3/2020 3:00:00 AM	0.0276739691721184	0.245817145639016	0.136745557405567
1/3/2020 6:00:00 AM	0.0207554768790888	0.491759804244915	0.256257640562002

Fig1 – Input Raw Data



Once you have the Rainfall Intensity Table on the second tab, you can proceed to draw IDF Curves. You have the option to input the Rainfall Intensity Table directly or generate it from raw data.

Within the IDF tab, you have the flexibility to choose from any or a set of return periods, including 2, 5, 10, 15, 20, 25, 30, 50, and 100 years. Additionally, you'll find an icon positioned to the right of each return period checkbox, which you can click on to adjust the chart's line settings in the window that opened.

You have the option to switch either the vertical or horizontal axis to logarithmic scaling. If you choose to apply logarithmic scaling to the horizontal axis, the values will be represented as $\log_{10}(\text{time})$ in seconds unit.

You can choose from various distributions to create IDF curves, and detailed explanations for these distributions are available in the "Formulas.pdf" file on the [IDF Curve web page](#).



Additionally, in the top bar, there is an option to save the chart in PNG format.

However, you also have the ability to export the IDF data to Excel for the purpose of creating charts in Excel.



Fig2 – IDF Curve